

## SEQUENCE LISTING

<110> Winter Sederoff, Heike  
Huber, Steven C  
Larabell, Carolyn A

<120> SYNTHETIC PEPTIDES THAT CAUSE F-ACTIN BUNDLING AND BLOCK ACTIN  
DEPOLYMERIZATION

<130> JIB-1571PCT

<140> Not yet assigned

<141> 2004-10-20

<150> US 60/513,275

<151> 2003-10-20

<160> 24

<170> PatentIn version 3.2

<210> 1

<211> 15

<212> PRT

<213> Zea mays

<220>

<221> peptide

<222> (1)..(15)

<400> 1

Glu	Asn	Gly	Ile	Val	Arg	Lys	Trp	Ile	Ser	Arg	Phe	Glu	Val	Trp
1				5					10					15

<210> 2

<211> 15

<212> PRT

<213> Zea mays

<220>

<221> peptide

<222> (1)..(15)

<400> 2

Glu	Asn	Gly	Ile	Leu	Arg	Lys	Trp	Ile	Ser	Arg	Phe	Asp	Val	Trp
1				5					10					15

<210> 3

<211> 15

<212> PRT

<213> Zea mays

<220>

<221> peptide

<222> (1)..(15)

<400> 3

Glu Asn Gly Ile Val Arg Lys Trp Ile Ser Arg Phe Glu Val Trp  
 1 5 10 15

<210> 4  
 <211> 15  
 <212> PRT  
 <213> Zea mays

<220>  
 <221> peptide  
 <222> (1)..(15)

<400> 4

Glu Asn Gly Ile Leu Lys Lys Trp Ile Ser Arg Phe Asp Val Trp  
 1 5 10 15

<210> 5  
 <211> 15  
 <212> PRT  
 <213> Drosophila melanogaster, Homo sapiens

<220>  
 <221> peptide  
 <222> (1)..(15)

<400> 5

Glu His Gly Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp  
 1 5 10 15

<210> 6  
 <211> 15  
 <212> PRT  
 <213> Drosophila melanogaster, Homo sapiens

<220>  
 <221> peptide  
 <222> (1)..(15)

<400> 6

Glu His Gly Ile Ile Thr Asn Trp Asp Asp Met Glu Lys Ile Trp  
 1 5 10 15

<210> 7  
 <211> 15  
 <212> PRT  
 <213> Drosophila melanogaster

<220>  
 <221> peptide  
 <222> (1)..(15)

<400> 7

Glu His Gly Ile Val Lys Asp Trp Asn Asp Met Glu Arg Ile Trp

1 5 10 15

<210> 8  
 <211> 15  
 <212> PRT  
 <213> Drosophila melanogaster

<220>  
 <221> peptide  
 <222> (1)..(15)

<400> 8

Glu Asn Gly Val Val Arg Asn Trp Asp Asp Met Cys His Val Trp  
 1 5 10 15

<210> 9  
 <211> 17  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> SS1 inactive control peptide

<220>  
 <221> peptide  
 <222> (1)..(17)

<400> 9

Gly Asp Arg Val Leu Ser Arg Leu His Ser Val Arg Glu Arg Ile Gly  
 1 5 10 15

Lys

<210> 10  
 <211> 18  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> SS2 active peptide based on SuSy 377-392

<220>  
 <221> peptide  
 <222> (1)..(18)

<400> 10

Gly Ile Val Arg Lys Trp Ile Ser Arg Phe Glu Val Trp Pro Tyr Leu  
 1 5 10 15

Lys Lys

<210> 11  
 <211> 15  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> SS11 inactive synthetic peptide

<220>  
 <221> peptide  
 <222> (1)..(15)

<400> 11

Ile	Leu	Arg	Val	Pro	Phe	Arg	Thr	Glu	Asn	Gly	Ile	Val	Arg	Lys
1				5					10					15

<210> 12  
 <211> 16  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> SS12 active synthetic peptide

<220>  
 <221> peptide  
 <222> (1)..(16)

<400> 12

Gly	Ile	Val	Arg	Lys	Trp	Ile	Ser	Arg	Phe	Glu	Val	Trp	Pro	Tyr	Leu
1				5					10					15	

<210> 13  
 <211> 16  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> SS15 less active synthetic peptide

<220>  
 <221> peptide  
 <222> (1)..(16)

<220>  
 <221> SITE  
 <222> (6)..(6)  
 <223> replaced Tryptophan residue with Alanines

<220>  
 <221> SITE  
 <222> (13)..(13)  
 <223> replaced Tryptophan residue with Alanine

<400> 13

Gly	Ile	Val	Arg	Lys	Ala	Ile	Ser	Arg	Phe	Glu	Val	Ala	Pro	Tyr	Leu
1				5					10					15	

<210> 14  
 <211> 9  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> SS16 less active synthetic peptide corresponding to short middle portion of SS12

<220>  
 <221> peptide  
 <222> (1)..(9)

<400> 14

Ser Arg Phe Glu Val Trp Pro Tyr Leu  
 1 5

<210> 15  
 <211> 19  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> NR11 inactive synthetic peptide

<220>  
 <221> peptide  
 <222> (1)..(19)

<400> 15

Gly Pro Thr Leu Lys Arg Thr Ala Ser Thr Ala Phe Met Asn Thr Thr  
 1 5 10 15

Ser Lys Lys

<210> 16  
 <211> 14  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> SP26 inactive synthetic peptide

<220>  
 <221> peptide  
 <222> (1)..(14)

<400> 16

Gly Arg Met Arg Arg Ile Ala Thr Val Glu Met Met Lys Lys  
 1 5 10

<210> 17

<211> 8  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Small block of SS12 sequence required for less active  
 synthetic peptide

<220>  
 <221> PEPTIDE  
 <222> (1)..(8)

<400> 17

Trp Ile Ser Arg Phe Glu Val Trp  
 1 5

<210> 18  
 <211> 10  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> SP3 inactive synthetic peptide

<220>  
 <221> PEPTIDE  
 <222> (1)..(10)

<400> 18

Arg Arg Ile Ser Ser Val Glu Asp Lys Lys  
 1 5 10

<210> 19  
 <211> 20  
 <212> PRT  
 <213> Drosophila melanogaster

<220>  
 <221> PEPTIDE  
 <222> (1)..(20)

<400> 19

Glu His Gly Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp His  
 1 5 10 15

His Thr Phe Tyr  
 20

<210> 20  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<220>

<221> PEPTIDE  
<222> (1) .. (15)

<400> 20

Glu His Gly Val Val Arg Asp Trp Asn Asp Met Glu Arg Ile Trp  
1 5 10 15

<210> 21  
<211> 15  
<212> PRT  
<213> Homo sapiens

<220>  
<221> PEPTIDE  
<222> (1) .. (15)

<400> 21

Glu Asn Gly Ile Val Arg Asn Trp Asp Asp Met Lys His Leu Trp  
1 5 10 15

<210> 22  
<211> 6  
<212> PRT  
<213> Artificial sequence

<220>  
<223> Core minimum block of SS12 sequence required for less active  
synthetic peptide

<220>  
<221> PEPTIDE  
<222> (1) .. (6)

<400> 22

Ser Arg Phe Glu Val Trp  
1 5

<210> 23  
<211> 13  
<212> PRT  
<213> Artificial sequence

<220>  
<223> SS synthetic peptide B

<220>  
<221> PEPTIDE  
<222> (1) .. (13)

<400> 23

Trp Ile Ser Arg Phe Glu Val Trp Pro Tyr Leu Lys Lys  
1 5 10

<210> 24  
<211> 20

<212> PRT  
<213> Artificial sequence

<220>  
<223> SS synthetic peptide C

<220>  
<221> PEPTIDE  
<222> (1)..(20)

<400> 24

Glu	Asn	Gly	Ile	Val	Arg	Lys	Trp	Ile	Ser	Arg	Phe	Glu	Val	Trp	Pro
1				5					10					15	

Tyr	Leu	Lys	Lys
			20